



**INFORMATION PAPER**

**SPECIAL AFRICA-INDIAN OCEAN (AFI)  
REGIONAL AIR NAVIGATION (RAN) MEETING**

**Durban, South Africa, 24 to 29 November 2008**

**Agenda Item 6: Development of a set of comprehensive work programmes in the air navigation field, aimed at improving efficiency of the air navigation system (Efficiency Committee)**

**THE NAVISAT PROJECT  
A NAVIGATION SATELLITE SYSTEM FOR MIDDLE EAST AND AFRICA**

(Presented by Egypt)

**1 HISTORICAL NOTES**

1.1 In 1997, the "NAVISAT" initiative was presented to the council of African ministers of transportation and communications in their eleventh conference in Cairo.

1.2 In 1998, the NAVISAT initiative was presented to the council of Arab ministers of transportation and communications in their meeting in Cairo.

1.3 In 1998, the ICAO general assembly adopted the Global Air Navigation Plan for CNS/ATM Systems. At that time, the Egyptian government presented its initiative to develop NAVISAT project as a part of the CNS/ATM infrastructure to serve the Middle East and Africa to ICAO in Montreal

1.4 In 1998, the initiative was presented to the COMESA group ministers of transportation and communications in Lusaka.

1.5 Since 1998, and from time to time, the project was presented to the ICAO regional offices in Middle East and Africa regions and a working group, which is "NAVISAT working group", was established.

1.6 In 1998, frequency coordination for NAVISAT project was initiated when EGYSAT1, 2 & 3 Advanced Publication Information (API) at three geostationary orbital locations were sent to the ITU. The ITU filings included L, L1, C and Ku bands.

1.7 In July 2004, a memorandum of agreement between the Egyptian Civil Aviation and Alcatel to jointly conduct a feasibility study and Business plan for the NAVISAT project.

1.8 During the study, five steering committee meetings were done. The members were the major Civil Aviation entities in Africa & Middle East (ACAC, ASECNA, DGAC, EHCAAN, SADC & ICAO MID office).

1.9 In January 11, 2005, the filling was updated and the Requests for Coordination (RFC) were sent to ITU. The filling names became NAVISAT1, 2 & 3 at the orbital positions 17, 21 & 36.5 degrees east.

1.10 In Dec. 2005, the study was finished and accepted by the steering committee. The study was strongly promising.

## **2 OFFERED SERVICES**

The NAVISAT is planned to have the following missions (in the Middle East and Africa regions). The offered services will have better technical characteristics at competitor price.

### **2.1 Aeronautical mission (it is the main mission):**

The ICAO CNS/ATM requirements will be completely fulfilled.

2.1.1 Mobile Communications services for civil aviations and airlines (data services and voice services) other services like telemedicine and security may be offered.

2.1.2 Fixed Communications services for civil aviations and airlines (data links with different bit rates can be offered through VSAT systems)

2.1.3 Navigation services (broadcasting of the augmented navigation signals over the region).

### **2.2 Complementary mission**

Other communications requirements for the passengers will be available (e.g. GSM, internet)

## **3 CURRENT STATUS**

3.1 In October 2006, A company called "NAVISAT Middle East and Africa" was established in Egypt to carry out a detailed study for the project and to supervise the frequency coordination process and the other activities.

3.2 The "NAVISAT Middle East and Africa" company (as an operator for the NAVISAT) attended the eighth operators review meeting (OMR 8) in TOKYO, December 2006 for the L-band frequency coordination and planned to attend OMR 9 in Indonesia December 2007 for the same reason.

3.3 During its 17th meeting in Rabat (2nd April to 4th April 2007), the ACAC air navigation committee has announced its continuous support to the NAVISAT as a regional system to offer the aeronautical communication and navigation services according to ICAO CNS/ATM recommendations as the offered services are cost effective than the similar available services.

3.4 A NAVISAT group was established by the ACAC air navigation committee during its last meeting.

3.5 A consortium of well known companies was selected to carry out the detailed study.

3.6 The contract has been signed in September 2008 for the Phase 1-A and negotiations are in progress for the rest of Phase 1.

3.7 In October 2008, the detailed Study has been started paid for by the Egyptian Government. It consists of a phased approach (phases A, B, C & d).

3.8 Phase 1A will be finished by the end of November 2008.

3.9 We are in the negotiation phase for:

3.9.1 Detailed study phases B, C & D

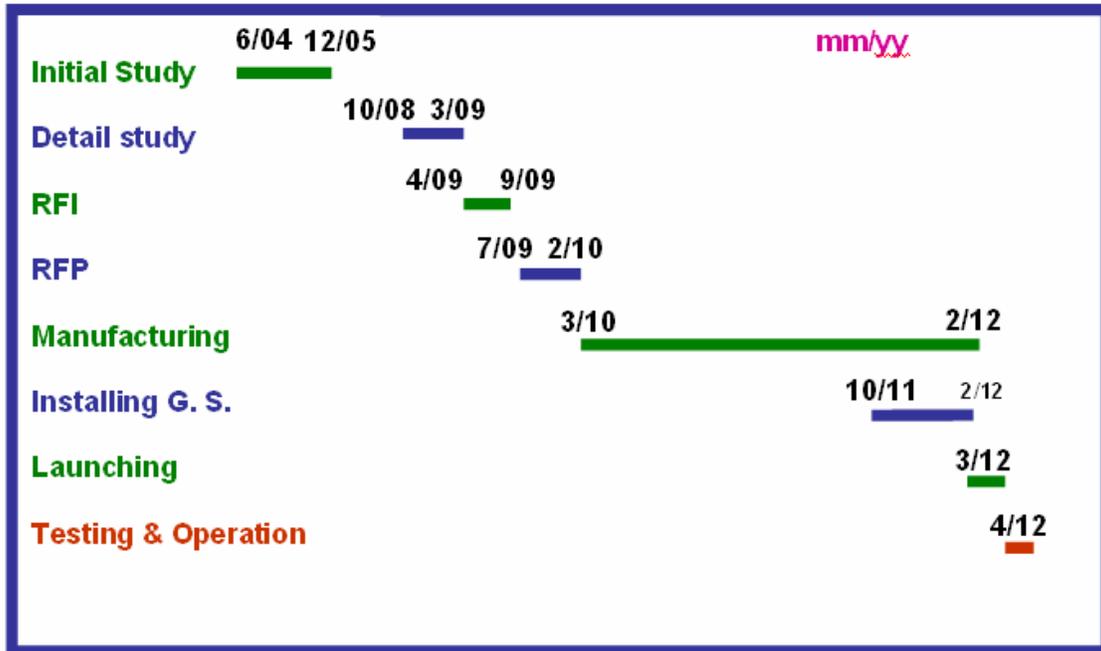
3.9.2 Regulatory and frequency coordination study

3.10 Concurrently with the detailed study, a group of complementary studies will be conducted. (HR, institutional, legal, Financial ...) The RFP for those studies will be issued sooner.

## **4 NAVISAT Tentative Implementation Plan**

Appendix -A is NAVISAT tentative implementation plan

## Appendix -A NAVISAT tentative implementation plan



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